

Nature's Call

An Activity Newsletter for Kids by Utah's Project WILD--Spring/Summer 2003



Hooray for Hummingbirds!

If your backyard or an area of your school grounds happens to have a patch of colorful red, tube-shaped flowers, you might be lucky enough to catch a glimpse of a hummingbird visiting them during the summer. Hummingbirds visit flowers to gather the sugary nectar they produce. Many people enjoy watching hummingbirds, and plant gardens full of showy flowers or hang red-colored hummingbird feeders just to attract these special birds.

Hummingbirds form a very large group of birds with nearly 340 species. Most live year-round in the warm tropical regions near the Equator where flowers always bloom and produce constant supplies of nectar. A few take a vacation each summer and migrate up into North America. Of those, most spend the summer in the southwestern United States. One species though travels all the way to Alaska! About five species make it to Utah for the summer or pass through on their way home.

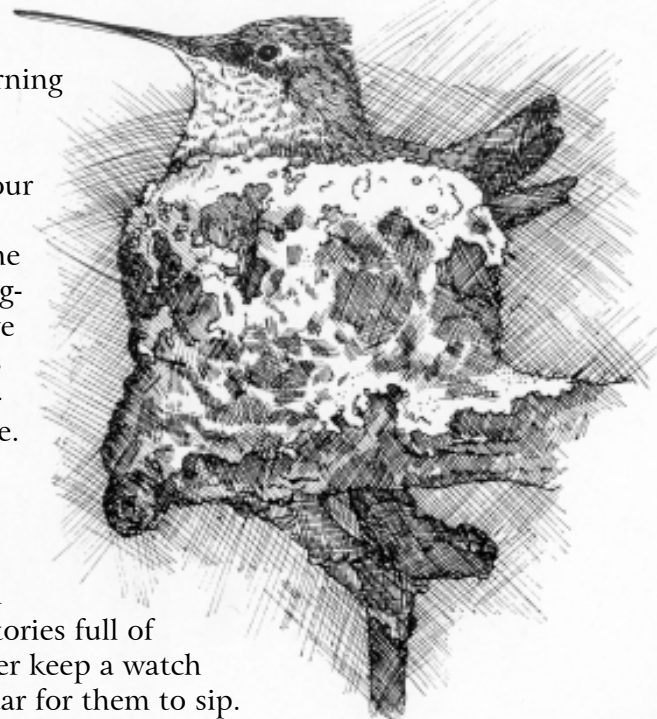
One thing people often notice about a hummingbird is how tiny it is. Most indeed are very small. The largest, the giant hummingbird (*Patagona gigas*) of the Andes reaches 8½ inches in length, but weighs only 0.7 ounces. The smallest, the bee hummingbird (*Calypte helinae*) of Cuba (also the smallest bird in the world) measures only 2¼ inches and weighs only 0.07 ounces. (That's less than the weight of a dime.)

Because hummingbirds are very tiny, they lose body heat to their surroundings very fast. This is because they, like all very small animals have more surface area compared to their inside volume (mass). It's like two desserts fresh out of the oven, a big 10-inch pie and a little tart—the pie takes much longer to cool down enough to eat than the tart because the bigger pie holds the heat longer.

Because hummingbirds lose heat so fast, they need to burn a lot of energy to generate a lot of heat. That's where nectar comes in. Nectar is a very energy-rich hummingbird fuel. Flowers provide nectar, but only a little per flower, so to gather enough nectar, hummingbirds have to visit over 1,000 flowers each day. They can see red flowers very well, and especially like tubular flowers, which are able to keep their stores of nectar deep in their blossoms beyond the reach of insects. A very long bill and equally long tongue, allow hummingbirds to reach the nectar. To insert their bill and lap up nectar, hummingbirds are able to hover in front of the flowers.

Hummingbirds are the only birds that can hover. To hover, a hummingbird rotates its wings in the shape of a figure eight, turning its wings completely over on both the fore and backstroke. You can mimic this by holding your arms straight out to your sides and tracing figure eights in the air with your hands. Imagine your thumbs are the leading edges of your wings, and as you hover, your palms will be facing down on the fore strokes and up on the backstrokes. Your “wings” move a lot slower though. Hummingbirds flap their wings about 20 to 80 times per second! To move their wings so fast, hummingbirds have very large chest muscles that total a third of their weight. To send oxygen to these hard-working muscles, their heart must beat 1,200 times each minute.

Hummingbirds are also famous for the shiny iridescent feathers they wear on their back and on a special throat patch (in the males) called a gorget. These magical feathers glow bright with striking colors when they catch the rays of the sun. Males flash these showy feathers to attract a mate and to defend their territories full of flowers with the sweet nectar they need to survive. This summer keep a watch for these little flying jewels wherever there are flowers with nectar for them to sip.



Learn more about hummingbirds on the pages that follow.

Humming Hummingbirds

Hummingbirds in North America were bestowed their name because of the humming sound they generate as they dash and dart through the sky. This whirring hum is created by both the structure and the motion of their rapidly moving wings. As a hummingbird zips through the air, ten extra-long and narrow feathers on each wing vibrate creating the unique humming buzz. This distinctive sound certainly impressed those who encountered these fast little birds and was the source of their name in a variety of cultures. Early colonists of the New World called them “humbirds” before they were known as hummingbirds. The word for hummingbird in Mayan is *ts’unu’un*, in Puerto Rican its *zumbador*, in Cuban its *zum-zum*, and in Creole its *murmure*.

Other names hummingbirds have make note of their relationship with flowers. In Brazil they have the Portuguese name of *beija flor*, “flower kissers,” and in Mexico they are known as *chuparosas*, “rose suckers” or *picaflors*, “flower pickers.”

Still, other names for hummingbirds reflect their dazzling jewel-like feathers. A Spanish description for them, *joyas voladores*, translates into “flying jewels.” And a South American Indian word for them, *colibri*, means “sun god birds.” Most European languages including German (*kolibri*), Italian (*colibri*), and Dutch (*kolibri*), which had no word for hummingbird until after exploration of the New World in the 1400s, adopted various forms of this word as their word for hummingbird.

Many of the scientific names for different hummingbird species reflect their beautiful shining feathers as well. For example, the genus *Selasphorus* comes from the Greek words meaning “light” and “bearing,” *Heliodoxa* means “sun glory,” and *Hylocharis* means “beauty of the forest”.

The hummingbirds we know in North American have been given English common names by us. In South America, the winter home of the same hummingbirds, they have Spanish common names, since Spanish is a language spoken in that part of the world.

For each of the species described below (species that happen to visit Utah for the summer) try to match the humming bird to its Spanish name listed below based on its description and the definitions for the Spanish words that are given.

Definitions for Spanish Words

- colibri = hummingbird

chupar = to suck

mirto = myrtle

rayado = stripped

gorji = throat

garganta = throat

cola = tail

barba= beard
- corona = crown

rafag = flash or burst

violeta = violet

negro = black

dorado = golden

vibrador = vibrator

ancho = broad

colica = colic

desertico=desert

Spanish Names for Hummingbird Species (two are given for each species). Put the correct number for the matching English name in each space.

- a. _____

Colibri Barbinegro or Colibri Gorjinegro
- b. _____

Colibri Coronivioleta Desertico or Chupamirto Garganta
- c. _____

Chupamirto Dorado or Colibri Colica
- d. _____

Chupamirto Cola Ancha or Colibri Vibrador
- e. _____

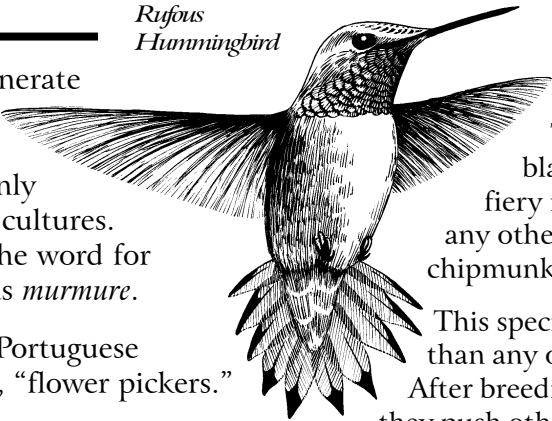
Chupamirto Rafaguitas or Colibri Gorgirrayado

Broad-tailed Hummingbird – *Selasphorus platycercus* (1)

This hummingbird spends its summers in the high meadows and forests of the mountains. Often you can hear it before you see it. As this hummingbird dives through the air, its wings make a very loud, distinct trilling buzzing noise. It sounds like a bunch of rattling cicadas, and you can hear it from up to 100 yards away! When you see the male, his glittering rosy-magenta colored gorget and the flashy green feathers on his back will catch your eye. As their common name tells you, the tail feathers of this species are noticeably broad. They are longer than in other species too.

Females are less colorful than the males and have only a few rose-colored and bronze feathers speckling their throats. They build well-camouflaged nests covered with lichens, bark and moss, and lined with spider webbing or other soft materials like the fluffy seeds from cottonwood trees.

Rufous Hummingbird



Rufous Hummingbird – *Selasphorus rufus* (5)

The rufous hummingbird gets its name from the rich, rusty brown feathers and blazing golden gorget it wears. Its name not only applies to its fiery colors but to its fiery nature too. A hummingbird with an attitude, this species will aggressively drive off any other hummingbirds that enter its territory. It will even try to scare off large insects and chipmunks too. If an intruder does not back off, a dive-bombing fight might follow.

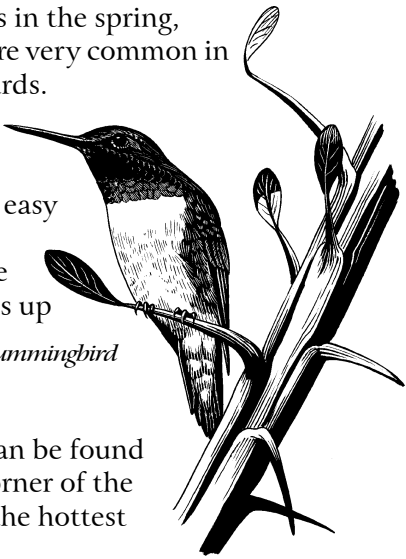
This species is also the hummingbird that migrates farther north during the breeding season than any other hummingbird. Some nest all the way up along the southwestern coast of Alaska. After breeding they migrate back south through Utah. On the way they need to refuel. Often they push other hummingbirds from flower patches and take over the nectar supply for themselves.

Black-chinned Hummingbird – *Archilochus alexandri* (4)

The black-chinned hummingbird has the most widespread breeding range of all western hummingbirds. They breed all the way from southwestern British Columbia and northwestern Montana south to central Mexico and from coastal California east to central Texas. Early arrivals in the spring, they are among the first hummingbirds to find and stake out territories. The are very common in Utah and are the species of hummingbird most often seen in suburban backyards.

The most obvious feature seen on the males of this species is a white collar below its deep black-colored gorget. When the sunlight hits it just right, a dazzling violet band shines below the edge of the black chin. Females are not easy to tell apart from females of other hummingbird species. They have white tipped outer tail feathers though that help in identifying them. One other clue to help identify this species is that both the males and females pump their tails up and down when they fly.

Black-chinned Hummingbird



Costa’s Hummingbird – *Calypte costae* (3)

Costa’s hummingbird is a desert dweller. In Utah they can be found only in the Mojave Desert region in the southwestern corner of the state. They breed early, starting in March, to avoid the hottest times during the summer.

Costa’s hummingbird have large heads but are very tiny. It is the only North American hummingbird with long flared extensions on the sides of its gorget that drape down like a big moustache. Its unique gorget and the top of its head flash a shiny metallic violet to purple color when they meet the rays of the sun.

Males perch on tall twigs or plant stems that rise above the deserty landscape of their territories. To defend his territory, he turns towards the rival and flares his colorful gorget. Sometimes he adds a short chip note or a longer whistling call to make his point.

Costa’s Hummingbird



Calliope Hummingbird – *Stellula calliope* (2)

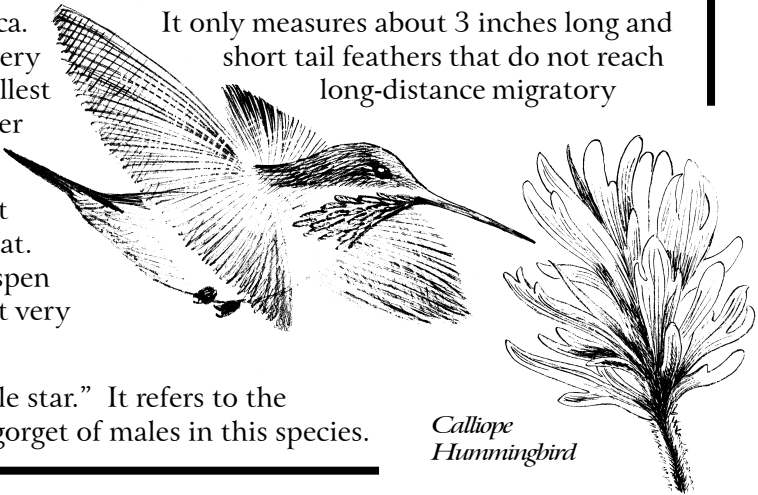
The calliope hummingbird is the smallest bird that breeds in North America. weighs only 1/10 of an ounce (that’s less than a penny). It also has very the tips of its folded wings when it perches. This species is also the smallest bird. Some travel 5,600 miles round-trip each year between their winter and summer homes.

Despite its small size, the calliope hummingbird is a mountain resident able to raise a family in its cool, high-elevation summer breeding habitat. It prefers edges of meadows rimmed with pine trees or canyons with aspen and willow thickets along streams. Some nest in Utah but they are not very common.

The first part of the scientific name of this species, *stellula*, means “little star.” It refers to the ray-like starburst of sparkling magenta-red feathers that decorate the gorget of males in this species.

It only measures about 3 inches long and short tail feathers that do not reach long-distance migratory

Calliope Hummingbird



Humdinger Hummingbirds!

How Do You Compare?

Hummingbirds

A hummingbird's average weight:
0.1 - 0.2 ounces(oz)
(less than weight of a penny)

A hummingbird's average length:
3 - 4 inches

A hummingbird's resting heart rate:
500 beats/minute

A hummingbird's heart rate when hovering:
1,200 beats/minute
(note - hummingbirds have the largest heart compared to their body size of any animal)

Number of times a hummingbird flaps its wings each **second** when hovering:
about 50 flaps/second
or 3,000, flaps/minute
(note - a hummingbird's flight (or pectoral) muscles make up **30 percent (%) of its body weight**)

A hummingbird's breathing rate at rest:
250 breaths/minute

A hummingbird's average body temperature:
104 - 109°F

Size of a hummingbird egg: **less than 0.02 ounces and less than 1/2 inch long**

Hummingbirds hatch in early summer.

How long a hummingbird stays with its mom after hatching: **about 5 - 6 weeks**

A hummingbird's lifespan: **about 3-5 years**

A hummingbird's favorite food:
nectar and some insects too

Number of Calories a hummingbird needs each day:
10 Calories
(note - to get this it needs to eat more than its weight in nectar and more than 8 times its weight in water—hummingbirds need to use the restroom a lot!)

Number of times a hummingbird feeds: **5 - 8 times each hour for 30 - 60 seconds each time**

A hummingbird's favorite color: **red**

You

Your weight: _____ pounds (lbs) _____ ounces (oz)
(note - there are 16 oz /lb so multiply the number of pounds by 16 to get ounces)

Your height:

Your resting heart rate:

Your heart rate when running:

Number of times you can flap your arms in a **minute**:

Your chest muscles make up only about 5 percent (%) of your total body weight.

Your breathing rate at rest:

Your average body temperature:

Your size when you were born: _____ pounds (lbs)
_____ ounces (oz) _____ inches long

In what month were you born?

How many years will you likely stay at home?

How old do you think you might get?

Your favorite food:

The number of of Calories you eat each day:
(note - an average adult eats 2,000 Calories/day)
(If you burned Calories as fast as a hummingbird you would need to eat 165,000 Calories per day—that's more than 80 times what you usually would eat.)

How often do you eat?

Your favorite color:

